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AB. DATE : 29-01-1985 PAT: A 59168050
PATENTEE : MITSUBOSHI BELT KK
PATENT DATE: 21-09-1984

INVENTOR : MATSUO TADAO; others: 03

INT.CL. : C08L23/06; C08K5/14

TITLE : ULTRA-HIGH-MOLECULAR-WEIGHT
POLYETHYLENE
COMPOSITION HAVING IMPROVED
RESISTANCE TO FRICTION AND
WEAR

ABSTRACT : PURPOSE: To provide a resin compsn. which gives moldings having improved wear resistance, by blending a specified amount of a ground sinter of an ultra- high-molecular-weight polyethylene and an org. peroxide with said polyethylene powder.
CONSTITUTION: 100pts.wt. ultra-high-molecular-weight polyethylene powder (A) having a viscosity-average MW of at least 1,000,000 and an average MW of at least 3,000,000 (light-scattering method), 20-100pts.wt. ground sinter of said polyethylene (B) (pref. one which has a particle size of 1-10mm., and a relatively low melt viscosity and is not crosslinked with an org. peroxide or the like) obtd. by compression molding said polyethylene, and 0.004-0.2wt% org. peroxide (C) such as dicumyl peroxide are blended together to obtain the desired resin compsn. This resin compsn. gives moldings having a high critical PV value and low wearing rate so that they are suitable for use as sliding parts.

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PR : JP830042969 830314

PA : (MIUA) MITSUBOSHI BELTING KK

DC : A17

IC : C08K5/14 ;C08L23/06

TI : Ultra high mol. wt. polyethylene compsn. - comprises sintered polymer powder and organic peroxide

3 : J59168050 New ultra high mol.wt. polyethylene resin compsn. (I) with improved abrasion and friction properties is made by mixing 20-100 pts.wt. of a ground, sintered body of a ultra high mol. wt. polyethylene (II) and 0.004-0.2 (pref. e.g. 0.02-0.1) pts.wt. of organic peroxide (III) in 100 pts.wt. (II) powder. (II) has an average viscometric mol.wt. of more than 1000,000 and an av. mol.wt. of more than 3000,000, by a light scattering method. The sintered body may be crosslinked by (III).

- (III) is e.g. a dialkyl peroxide e.g. 2,5-dimethyl 2,5-di(t-butylperoxy) hexane and dicumyl peroxide or a peroxyketal e.g. 1,1-bis(t-butylperoxy) 3,3,5-trimethylcyclo hexane. Pref. (III) is used in powder form. The sintered body has particle size 1-10 mm.
- USE/ADVANTAGE - (I) has increased abrasion resistance and reduced kinetic friction coefficient, and is suitable for sliding parts prodn. (4pp Dwg.No.0/0)